

Webinar

First Passage Under Restart

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Stopping a process in its midst -- only to start it all over again -- may prolong, leave unchanged, or even shorten the time taken for its completion. Among these three possibilities the latter is particularly interesting as it suggests that restart can be used to expedite the completion of complex processes which otherwise would hinder. I will introduce the problem of first passage under restart using the example of simple diffusion, but will then explain why many unknowns compel us to generalize to arbitrary first passage processes and restart mechanisms. Finally, I will demonstrate how the framework developed herein can serve as a platform to understand bio-chemical reactions and generic search processes.

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4:00 PM